

Setting recovery targets for the Puget Sound ecosystem

Gerry O’Keefe – Acting Executive Director, Puget Sound Partnership

Consistent with direction provided by the Puget Sound Partnership Leadership Council throughout 2010 and advice from the Partnership’s Science-Policy discussion on December 14, 2010, Partnership staff will support adoption of at least 20 targets for ecosystem recovery as a key feature of the first biennial revision of the Action Agenda in 2011.

What Is Target Setting?

For the Puget Sound Partnership, ecosystem targets articulate a vision of a healthy Puget Sound ecosystem and conditions we expect to achieve by 2020.¹ The Partnership’s ecosystem targets are expressions of desired future conditions: healthy status (the ultimate objective) and/or the objectives for 2020 (desired status on a trajectory toward healthy status).

The Partnership will develop two types of targets.

- For ecosystem components, targets describe desired future conditions of human health and well-being, species and food webs, habitats, water quantity, and water quality. Targets for ecosystem components will help the Partnership and others to interpret information about the status of the ecosystem and to understand the gap between observed and desired conditions. In 2011, the Partnership will adopt targets for
 - Each of our Dashboard of Ecosystem Indicators
 - Acres of restored estuary (an Environment Protection Agency indicator for National Estuary Programs include the Puget Sound).
- For pressures on the ecosystem (i.e., sources of stressors and stressors that degrade the status of the ecosystem), targets describe desired reduction in the level of pressure. These targets will guide revisions to Action Agenda implementation strategies, the priority of near-term actions, recommendations for allocation of funding and other resources to specific strategies and actions, and the evaluation of the success of Action Agenda implementation. The Partnership intends that other implementing agencies will use these targets to identify and design activities that contribute to achieving these targets, to align their allocation of funding and other resources to these outcomes, and to evaluate the effects of their investments and activities

Role of Science

The Partnership will adopt ecosystem targets as policy statements informed by science. One important scientific consideration is the amount of time required for the ecosystem to respond to our actions. For example, the recovery targets for healthy orca or salmon populations will likely not be realized until well

¹Per Washington State statute RCW 90.71.310(1)(c): “the action agenda shall include near-term and long-term benchmarks designed to ensure continuous progress needed to reach the goals, objectives, and designated outcomes by 2020.”

beyond 2020 even under the best possible actions. Consequently, the Partnership's targets will describe the desired status for 2020 and where it is different, the ultimate desired status beyond 2020.

Another scientific consideration is the linkages and relationships among ecosystem components (such as food webs). To the extent possible, we will set targets based on the levels necessary for suites of ecosystem components to work together in a functioning ecosystem. Finally, scientists will consider the uncertainty in the data and information. For example, differences in the availability and quality of information or scientific models means that the targets will be uneven in how certain we are that they represent the desired self-sustaining, healthy state or in the policy consensus about the targets.

How Do We Get The Work Done?

We will need Partnership staff and many others to be engaged in scientific assessments and policy discussions to support the adoption of the proposed topics for ecosystem recovery targets (Table 1). Because pressure reduction targets are central to the 2011 revision of the Action Agenda, we will focus detailed attention on five pressure reduction targets (Table 1, center). We will also need Partnership staff and the "Indicator Champions" from the different agencies and tribes who have been refining the Dashboard of Ecosystem Indicators to help provide the analyses to set targets for those indicators. We will need our boards and councils to review the targets and provide guidance. Your enthusiasm to help, which you showed so strongly at Partnership's Science-Policy discussion in December, is essential for us to succeed.

Then What?

We will continue to set additional targets to reflect objectives of the suites of strategies and actions we are engaged in. We will also continue to improve existing targets based on better scientific understanding. Learning from what we are doing and adapting targets and associated strategies to reach the targets is central to the Partnership's commitment to science-based, adaptive management and a developing a Sound-wide culture of learning and continuous improvement.

Table 1. Topics for Puget Sound Partnership target setting for 2011

Ecosystem recovery goal	Key pressure or strategic focus	Dashboard indicator
Human health & well-being		Shellfish growing areas Swimming beaches Commercial fish harvest Recreational fishing licenses Quality of life index Sound behavior index
Species and food webs		Orca Salmon Herring Birds
Habitats	Land development Shoreline alteration Nearshore restoration	Land use/land cover Shoreline alteration Estuary restoration* Eelgrass
Water quantity & quality	Stormwater (runoff from built environment) Wastewater (on-site & treatment plants)	Water availability Toxics in fish Toxics in sediment Marine water quality index Freshwater quality index
(Programmatic)		Funding for Puget Sound Action Agenda engagement

* Not a Dashboard indicator but a key Environmental Protection Agency performance measure for Puget Sound and National Estuary Program evaluation and reporting.